Active Recombinant Human SIRT1, His-tagged

Cat. No. SIRT1-1360H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human SIRT1 (193-end) was expressed by baculovirus in Sf9 insect cells using an N-terminal His tag.
Species	Human
Source	Sf9 Cells
ProteinLength	193 aa-end
Description	SIRT1 is a member of the sirtuin family of proteins which are homologs to the yeast Sir2 protein. Sirtuin family contain a sirtuin core domain and are grouped into four classes with SIRT1 being a member of class I. SIRT1 is a stress-response and chromatin-silencing factor. It is an NAD(+)-dependent histone deacetylase involved in various nuclear events such as transcription, DNA replication, and DNA repair. SIRT1 protein binds and deacetylates the p53 protein. Expression of wild type SIRT1 in human cells reduces the transcriptional activity of p53 indicating that SIRT1 is involved in the regulation of p53 function via deacetylation.
Form	Recombinant protein stored in 50mM sodium phosphate, pH 7.0, 300mM NaCl, 150mM imidazole, 0.1mM PMSF, 0.25mM DTT, 25% glycerol.
Bio-activity	2100 RLU/min/ng
Molecular Mass	~84 kDa

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Purity	>70%
Applications	SIRT Assay
Storage	Store at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles.
Concentration	0.1μg/μl

GENE INFORMATION

Gene Name	SIRT1 sirtuin 1 [Homo sapiens]
Official Symbol	SIRT1
Synonyms	SIRT1; sirtuin 1; sirtuin (silent mating type information regulation 2 homolog) 1 (S. cerevisiae) , sirtuin (silent mating type information regulation 2, S. cerevisiae, homolog) 1; NAD-dependent deacetylase sirtuin-1; SIR2L1; hSIR2; hSIRT1; SIR2alpha; sir2-like 1; sirtuin type 1; SIR2-like protein 1;
Gene ID	23411
mRNA Refseq	NM_001142498
Protein Refseq	NP_001135970
MIM	604479
UniProt ID	Q96EB6
Chromosome	10q21

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Location	
Pathway	Amphetamine addiction, organism-specific biosystem; Amphetamine addiction, conserved biosystem; E2F transcription factor network, organism-specific biosystem; Energy Metabolism, organism-specific biosystem; FoxO family signaling, organism-specific biosystem; HIF-2-alpha transcription factor network, organism-specific biosystem; Regulation of Androgen receptor activity, organism-specific biosystem;
Function	HLH domain binding; NOT NAD+ ADP-ribosyltransferase activity; NAD+ binding; NAD-dependent histone deacetylase activity; NAD-dependent histone deacetylase activity (H3-K9 specific); NAD-dependent protein deacetylase activity; NAD-dependent protein deacetylase activity; bHLH transcription factor binding; deacetylase activity; enzyme binding; histone binding; histone deacetylase activity; identical protein binding; metal ion binding; mitogen-activated protein kinase binding; p53 binding; protein C-terminus binding; protein binding; protein deacetylase activity; transcription corepressor activity; transcription corepressor activity; zinc ion binding;

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